

Aero Design Ltd.

Work Order Control Sheet

Work Order#: 2016-135

Date Opened: 13 October 2016

Title: Fabrication

Aircraft OEM: Bell

Aircraft Model: 212

Product Type: Cargo Basket

Product Model: Mega

Quantity: 2 body

Work Order Contents

Work Order/Build Sheets (Procedures Provided)
Additional Work Sheets (Standard Practice)
Drawings (See List Below)
Parts Distribution Sheet
Sub Component Tags
Completed Certification (Original)
Time Sheet (R&D)
Notes

Initial or N/A

DB
N/A
DB
DB
N/A
N/A
N/A
N/A

Component Completion

Quantity Complete on This Work Order
Quantity Incomplete on This Work Order
Further Processing Required Before Release
Release to Stock as Components

As Instructed

2
N/A
N/A
N/A

Build Sheet Contents

Tasks Initialled
Dual Inspections Initialled

Initial or N/A

JC
JC

Drawing List

Drawing #	Rev #	Description	Initial or N/A
100611	0	Body	DB
100620	0	Hoop	DB
100621	0	End Hoop	DB
100622	0	Att Hoop	DB

Certification

Form One Completed
Serviceable (Green) Tag Completed
In Process (Yellow) Tag Completed
Unserviceable (Red) Tag Completed
Parts Placed in Stores for Distribution

Initial or N/A

N/A
N/A
N/A
N/A
N/A

Additional Documentation

Documentation of a minor change
Non-Conformance Report Required
Service Difficulty Report Required

Initial or N/A

N/A
N/A
N/A

Billing

Local (Aero Design)
Research and Development
Third Party

Initial or N/A

JC
N/A
N/A

Traveller

Initial or N/A

Note:

Work performed by:

Print: D. Bartfai

Sign: [Signature]

SCA: AD07

Date: 19-Jan-17

ICC / Dual Inspection performed by:

Print: J. Rekve

Sign: [Signature]

SCA: AD01

Date: 19-Jan-17

Work Order closed by:

Print: J. Clarke

Sign: [Signature]

SCA: AD02

Date: 09-May-17

Approved Manufacturing Facility 73-04

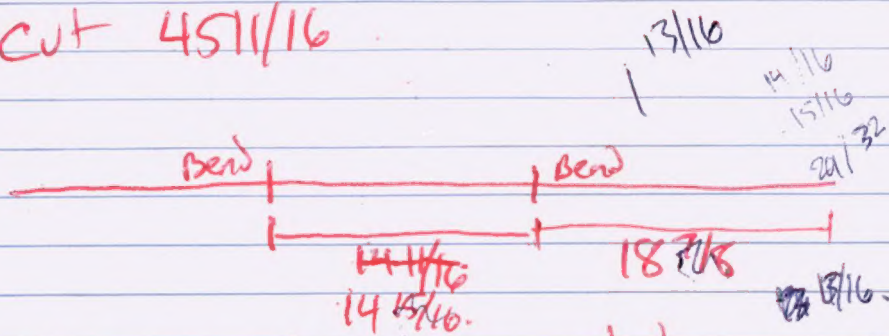
Form 20/0/03

Rev. Original 23 Sep 2014

MARCH 3, 2015

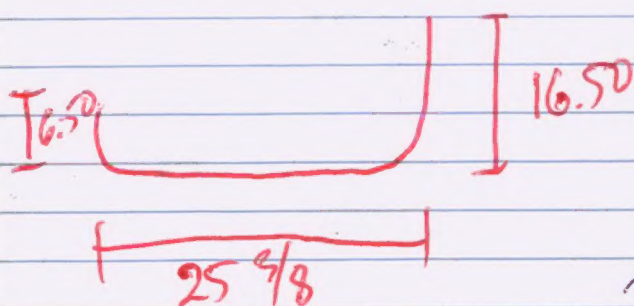
212 Mega end hoop (L₁) 4130

Cut 4511/16



Remove tube as needed on short side after bending

Caution: Do not bend without ample extra tube on short side. tube will crush.



45° cuts both ends
~~Don't cut~~



ARMOR ALLOYS

Edmonton, AB T. (780) 463-2207
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Calgary@ArmorAlloys.com
Vancouver@ArmorAlloys.com

100% Canadian Owned

24 / 7 After-Hour Service Available

Registered to ISO 9001

212 Mega Mesh
Bend @ ~~12~~¹¹" & 35³/₄



Stainless Steel & Alloy
Pipe, Fittings, Flanges, Valves, Tubing, Flex Hoses & Related Products

Work Order: 2016-135

Material Tracking Sheet

1 of 2

Date Opened: Oct 2016

Bell 205/212

Mega Basket Fabrication

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	<u>2</u>		100611-01	Basket Assembly		
Step 1				<i>Top Frame Assembly</i>		
	. 2		--	3/4" Tube - Long Rim (108.75")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15070</u>
	. 2		--	3/4" Tube - Top Rim (6.0")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15070</u>
	. 5		--	3/4" Tube - Short Stringer (4.5")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15070</u>
Step 2				<i>Weld Top Frame Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>14033</u>
Step 3				<i>Inspection - Top Frame</i>	None	
Step 4				<i>Body Assembly</i>		
	. 1		100621-01	LH End Hoop	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>See attached sheet</u>
	. 2		100621-02	RH End Hoop	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>See attached sheet</u>
	. 1		100622-01	Attachment Hoop		<u>See attached sheet</u>
	. 1		100620-01	Hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>See attached sheet</u>
			100620-02	Hoop - with handle provisions	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>See attached sheet</u>
	. 1		--	3/4" Tube - Front Rim (108.75")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15070</u>
	. 2		--	3/4" Tube - Side Rim (25.7")	4130 Steel, 3/4" x 0.035 Sqr. Tube	<u>15070</u>
	. 12		--	1/2" Tube - spine	4130 Steel, 1/2" x 0.035 Sqr. Tube	<u>15072</u>
Step 5				<i>Weld Body Assembly</i>		
	. A/R		--	Welding Rod	ER70S-2 TIG Rod	<u>14033</u>
Step 6				<i>Inspection - Frame Assembly</i>	None	
Step 7				<i>Mesh Assembly</i>		
	. 1		--	Mesh (Body - 56" x 108")	3/4-16F Expanded Mild Steel sheet	<u>15037</u>
	. 2		--	Mesh (End - 30" x 21")	3/4-16F Expanded Mild Steel sheet	<u>15037 16038</u>

Work Order: 2016-135Date Opened: Oct 2016Material Tracking Sheet
Bell 205/212
Mega Basket Fabrication

2 of 2

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 8				<i>Weld Mesh</i>		
	A/R		--	Welding Rod	ER70S-6 MIG Wire	15090
Step 9				<i>Weld Basket Components</i>		
	. 2		49215-01	Spacer (Lid prop)	304 Stainless Steel, ½" Dia.	2015-07
	A/R		--	Welding Rod	ER308L TIG Rod	14028
	. 2		100611-10	Cap	1018 Mild Steel, 0.050" Sheet	9010
	A/R		--	Welding Rod	ER70S-2 TIG Rod	14005
Step 10				<i>Clean Up</i>	None	
Step 11				<i>Inspection - Final Assembly</i>	None	
Step 12				<i>Powder Coating</i>		16073 / 17012

CARGO BASKET BODY FABRICATION – Bell Medium Mega Basket

General

These instructions apply to Bell Medium Mega cargo basket body assembly. Refer to the following drawings, at the current revision, for dimensions and details:

Bell Medium – left or right

100611, Revision 0 – Mega Basket

Work Order: 2016-135

Qty 2

Date Open: Oct 2016

Complete
(initial or SCA #)

N/A N/A N/A
#3 #4 #5

1. Top Frame Assembly

- Cut and fit $\frac{3}{4}$ " x 0.035 material to fit rim jig and fit stringers inside frame.
- Record material PO on attached material list.
- Remove writing on tubes with acetone and scotch bright.
- Drill #30 (0.129) vent holes to vent stringer tubes into rims.

#1 #2
AD AD
73-04 73-04
07 07

2. Weld Top Frame Assembly

- TIG weld top frame assembly using ER70S-2 rod.
- Record welding rod PO on attached material list.

AD AD
73-04 73-04
05 05

3. Inspection

- Top frame for complete welds

AD AD
73-04 73-04
05 05

4. Body assembly

a. General

- Vent holes shall be #30 (0.129), and located inside the structure wherever possible to allow venting of weld gasses through existing holes (i.e. lid prop bushing, hoops, etc.)
- Grind corner welds from step 2 on top frame to allow hoops to sit flat.
- Pull required hoops from stock.
 - If hoops are not in stock see detailed procedure sheet for specific hoop fabrication.
 - Ensure vent hole is located to vent spine tubes.
- Assemble hoops with attachment lug locating jig and hoop spacing jig.
 - Ensure correct order and orientation of hoops. Refer to drawing.
 - Attachment lugs are on inboard side.
 - Handle bracket bushings are on outboard side, second and third hoops from both ends.
 - Run 3/8-24 tap into attachment lugs to ensure clear threads.
 - Bolt attachment lug locating jig to attachment hoops with 3/8-24 bolts.
 - Attach inboard and outboard hoop spacing jigs to all hoops using C-clamps.
 - Attach bottom (spine) jig to all hoops using C-clamps. Ensure jig is straight prior to tightening all clamps.

AD AD
73-04 73-04
07 07

CARGO BASKET BODY FABRICATION – Bell Medium Mega Basket

Complete
(initial or SCA #)

#1 #2 #3 #4 #5

- e. Cut ½" x 0.035 material to fit spine jig.
- f. Cut ¾" x 0.035 material for side rim to fit from upper inboard rim to lower outboard rim at both ends.
 - i. Refer to drawing for position.
 - ii. Drill hole for lid prop bushing as indicated on drawing.
- g. Drill vent holes into hoops and/or rim to vent strut(s) and front end cutout.
- h. Record hoop WOs and material POs on attached material list.
- i. Remove writing on tubes with acetone and scotch bright.
- j. Insert rim assembly into jig and set frame assembly onto rim. Ensure correct orientation of lid prop bushings in rim to frame. Bushing hole must be closer to attachment side.
- k. Align hoops to rim in accordance with drawing.

AD AD
73-04 73-04
05 05

5. TIG weld body assembly.

- a. Ensure lug locating jig and hoop locating jigs are in place. Jigs must remain in place for as long as practical during welding.
- b. TIG weld using ER70S-2 rod.
- c. Side rim tubes (see step 4.f.) must be welded in place after the hoops are welded to the rim. Jigs must be in place prior to welding strut tubes.
- d. Record welding rod PO on attached material list.

AD AD
73-04 73-04
05 05

6. Inspection

- a. Frame assembly for complete welds.

AD AD
73-04 73-04
07 07

7. Mesh assembly.

- a. Pull sheet of expanded mesh from stock. Record material PO on attached material list.
- b. Cut mesh to size for body.
- c. Remove surface rust with scotch-brite.
- d. Bend body mesh –
 - i. Bends are made at ?? and ?? (figure).
 - ii. Align 3" tube to required position and clamp tube in place.
 - iii. Bend mesh by hand tightly over tube along length of tube.
 - iv. Keeping mesh in place, un-clamp 3" tube, move to other position and clamp tube in place.
 - v. Bend mesh by hand tightly over tube along length of tube.
- e. Install attachment lug jig onto basket frame.
- f. Insert mesh into basket.
 - i. General
 1. Some cells may interfere with correct positioning, especially at the upper corners and around struts. Bend cell(s) in as required, do not cut cells off.
 2. Ideally welds will be located on mesh intersections. Shift mesh if possible to minimize welds located off mesh intersections.
 3. Ensure mesh reaches all edges of basket BEFORE trimming. Regardless of progress in clamping, remove clamps and shift mesh if required.

CARGO BASKET BODY FABRICATION – Bell Medium Mega Basket

Complete
(initial or SCA #)

#1 #2 #3 #4 #5

4. Ensure cleco clamps are placed from the inside of the basket to allow removal during welding. Cleco clamps may be used from the outside during fitting, but must be removed prior to welding.
 - ii. Starting at inboard top edge of basket, clamp mesh to hoop near top rim using cleco clamps onto hoops.
 - iii. Working down the inboard side, clamp mesh to hoops with cleco clamps. Clamp down into radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, two clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - iv. Clamp mesh to spine in at least 1 place per section.
 - v. Working up the outboard side, clamp the mesh into the radius of hoop and continue clamping as required to maintain tight fit in corner of hoop. After the corners are tight, 2 clamps just onto the radius on both ends should be sufficient to hold the corner tight, remove all extra clamps.
 - vi. Trim upper edges of mesh if required, edge of mesh must be low enough on rim tube to prevent the weld from protruding above the edge of the rim. Some sheets are tapered and may require ½ to 1 cell to be removed over some or all of the length of the basket. De-burr cut edges with a sanding disc on a die-grinder. Straighten cut cells with duck-bill pliers. Clamp mesh near upper edge to hoops with cleco clamps after trimming.
 - vii. Trim ends to land on hoops, at mesh intersections if possible.
- g. Cut mesh to fit ends. Record material PO on attached material list.
 - i. Remove surface rust with scotch-brite.
 - ii. Ensure mesh is cut at intersections where possible.

AD AD
73-04 73-04
05 05

8. Weld mesh to frame assembly per drawing.
 - a. Ensure lug locating jig is in place prior to welding.
 - b. General welding requirements, MIG welding:
 - i. Every intersection at top edges.
 - ii. Every intersection at ends.
 - iii. First 5 intersections down on hoops, then every second intersection.
 - iv. Every intersection along spines.
 - c. MIG weld using ER70S-6 wire.
 - d. Bend and trim cells bent in to fit mesh as required and weld in position.
 - e. Grind high spots off body mesh welds on ends before welding end mesh.
 - f. Record welding rod PO on attached material list.

AD AD
73-04 73-04
05 05

9. Weld basket components
 - a. TIG weld lid prop bushings, two places, using ER308L rod.
 - i. Record welding rod PO on attached material list.
 - ii. Record lip prop bushing WO on attached material list.
 - b. TIG weld caps to close top of 1" hoops using ER70S-2 rod.

CARGO BASKET BODY FABRICATION – Bell Medium Mega Basket

Complete
(initial or SCA #)

#1 #2 #3 #4 #5

AD
73-04
07

AD
73-04
07

10. Clean up

- Grind high spots off mesh welds.
- Tighten mesh using special pliers. Tighten enough to remove "oil canning", where mesh springs in or out. Do not tighten in corners of hoops, mesh will be deformed.
- Remove surface rust with scotch-brite pad.

AD
73-04
01

AD
73-04
01

11. Final Inspection

To be completed by a different person than the previous steps.

- Basket body assembly for complete welds, and required minimum mesh weld locations.
- Filled vent holes – usually on hoops.
- Overall condition and conformity to drawing(s).
 - Hoops for height.
 - Rim for width and length and alignment.
 - Lid prop lugs position.
- Material lists complete.
- Tag complete basket body assembly in preparation for powder coating.

AD
73-04
01

AD
73-04
02

12. Powder Coating

- Parts are to be powder coated in accordance with commercial practices.
- Inspect powder coating on receiving.
- Tag basket body assembly and place into stock in preparation for assembly.

Work Order: 2016-135

Material Tracking Sheet

1 of 2

Date Opened: Oct 2016Bell 205/212
Mega Basket Hoops

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
Step 1	2		100620-01	Hoop - standard	4130 Steel, 1/2" x 0.035 Sqr. Tube	15072
Step 1	4		100620-02	Hoop - with handle provisions	4130 Steel, 1/2" x 0.035 Sqr. Tube	15072
Step 2				Welding		
	2	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	16070
	A/R		--	Welding Rod	ER70S-2	14005
Step 3				Inspection	None	
Step 1	2		100621-01	LH End Hoop	4130 Steel, 3/4" x 0.035 Sqr. Tube	15072
Step 2				Welding		
	2		100621-03	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	16070
	A/R		--	Welding Rod	ER70S-2	14005
Step 3				Inspection	None	
Step 1	2		100621-02	RH End Hoop	4130 Steel, 3/4" x 0.035 Sqr. Tube	15072
Step 2				Welding		
	2		100621-03	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	16070
	A/R		--	Welding Rod	ER70S-2	14005
Step 3				Inspection	None	

Work Order: _____

Material Tracking Sheet

2 of 2

Bell 205/212

Date Opened: _____

Mega Basket Hoops

Ass'y Step	Qty	Detail Drawing	Part Number	Description	Material	PO/WO
	4		100622-01	Hoop - attachment		
Step 1				1/2 Hoop Fabrication - 1/2" hoop		
	1		100622-03	1/2" Tube - hoop	4130 Steel, 1/2" x 0.035 Sqr. Tube	15070
Step 2				Machining	None	
Step 3				1/2 Hoop Fabrication - 1" hoop		
	1		100622-02	1" tube - hoop	4130 Steel, 1" x 0.065 Sqr. Tube	16037
Step 4				Machining	None	
Step 5				Joint Preparation	None	
				Welding		
Step 6	2		90621-05	Stud	1018 Mild Steel, 5/8" Dia.	13005
Step 7	4	84262	84272-01	Bushing	4130 Steel, 5/16" x 0.058 Rnd. Tube	16070
Step 8	1		76423-04	Cap	1018 Mild Steel, 0.050" Sheet	15035
	A/R		--	Welding Rod	ER70S-2	14005
Step 9				Finishing and Inspection	None	

NOTES:

1. REMOVE ALL BURRS AND BREAK SHARP EDGES
2. PRIOR TO WELDING, DRILL 600 (1.191) HOLE IN ASSEMBLY FOR MOUNTING OF WELD GAGES. WHEN ASSEMBLY IS COMPLETE, FILL 1 POSITION WELD HOLES WITH ROSETTE WELD
3. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS D9.9C
4. 4130 AND 1018 STEEL: WELDING ROD SHALL CONFORM TO ER70S-D2 OR EQUIVALENT
5. STAINLESS AND 4130 STEEL: WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT

INSTALL ITEM 12 (BASKET HANDLE PROMINIONS ASSEMBLY) IN ACCORDANCE WITH AERO DESIGN LTD. DRAWING 24929 IN LOCATIONS SHOWN BEFORE WELDING HOOPS TO RING

5. FINISH THOROUGHLY CLEAN AND POWDER COAT BASKET ASSEMBLY

[illegible]

0.75
REF

15.75
REF

21.0
REF

30.5
REF

12.0
REF

11

DETAIL B

ATTACHMENT OF THIS MESH TO END HOOPS
WELD ALL JOINTS INTERSECTING ALONG HOOP
TYPICAL BOTH ENDS

C-C

WELD JOINT HOLES IN END HOOPS, IF ANY, ALL OTHER
BEADING & COMPLETES TYPICAL BOTH END HOOPS

END VIEW

Figure 10: Typical Reinforcement Detail for Slab Edge. The diagram shows a cross-section of a slab edge with reinforcement bars (GTAB) and stirrups (STAB). The reinforcement is shown in a grid pattern with callouts 04, 06, 08, 02, 07, 08, 06, 05, and 11. A note indicates "TYP. ALL INTERSECTIONS OF HOOPS TO RIMS".

Diagram illustrating the attachment of a mesh to a body, showing the mesh structure and the attachment points.

Labels and descriptions:

- ATTACHMENT OF BODY MESH TO END HOOP
WELD ALL MESH INTERSECTIONS
- ATTACHMENT OF BODY MESH TO END HOOP
WELD ALL MESH INTERSECTIONS ALONG THE HOOP
TYPICAL BODY ENDS
- ATTACHMENT OF BODY MESH TO SIDES OF HOOPS
WELD FIRST 3 MESH INTERSECTIONS DOWN FROM THE
TWO ENDS OF EACH SIDE OF HOOP
WELD ALL MESH INTERSECTIONS
ADDITIONAL WELDS ARE PERMITTED AT DISCREET
TYPICAL ALL HOOPS (EXCEPT END HOOPS)

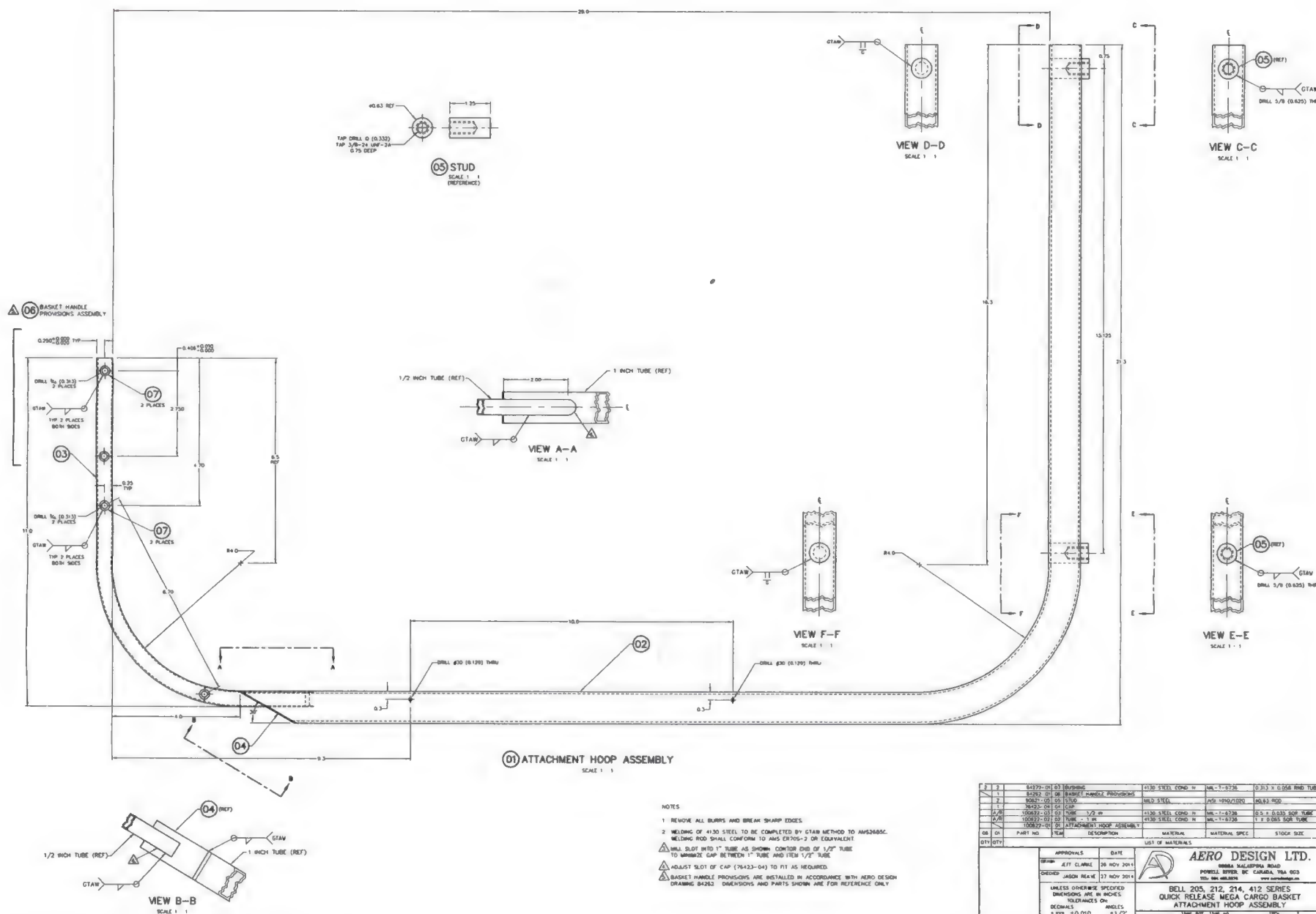
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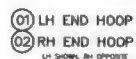
1/2" THROUGH OUTBOARD SIDE OF RIB
SPACED FULL & HELD IN PLACE
WITH NUT & WASHER THROUGHOUT AFTER WELDING


6	0462-01	2	BASE T. HANDLE. PROTECTING. COBOLITE				
6	736-12	11	WELD	WELD STEEL	COMMERCIAL		
7	1006-11	1	WELD	WELD STEEL	100 100/1020	6.000 SHEET	
8	0535-01	10	BUSHING				
9	1006-20	12	WELD	WITH NUTS AND WASH.			
10	1006-20	1	WELD				
11	1006-21	24	ATTACHMENT WOOD				
12	1006-21	1	WOOD	100 100 WOOD			
13	1006-21	1	WOOD	100 100 WOOD			
14	0001-01	1	WELD	430 STEEL, COMD W	WEL-1-4730	0.5 X 0.035 300R TUBE	
15	0001-01	1	WELD	430 STEEL, COMD W	WEL-1-4730	0.75 X 0.035 300R TUBE	
16	1006-11	1	WELD	WELD STEEL			
17	0001-01	1	WELD	WELD STEEL			
18	0001-01	1	WELD	WELD STEEL			
19	PART NO	ITEM	DESCRIPTION	MATERIAL	DESIGN SPEC	STOCK SIZE	
20	QTY			LIST OF MATERIALS			
APPROVALS			DATE		AERO DESIGN LTD.		
DESIGNED BY			JERRY CLARKE		29 NOV 2004		
DRAWN BY			JACOB MEYER		27 NOV 2004		
UNLESS OTHERWISE SPECIFIED			POMEREL METERED BY CANADA 100A 603				
DIMENSIONS ARE IN INCHES			TEL: 604.636.0874				
TOLERANCES ON			WWW.AERODESIGNLTD.COM				
DIMENSIONS OF BUSHES			BELL 205, 212, 214, 412 SERIES				
R 8/30 0.010			QUICK RELEASE, MEGA CARTRIDGE				
R 1/2 0.003			BASKET BODY ASSEMBLY				
R 1/2 0.010			SCALE 1 OF 1				
R 1/2 0.010			AERO 100611				
R 1/2 0.010			REV				

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REV	DESCRIPTION OF CHANGE	INITIALS	DATE	
0	INITIAL ISSUE			

[illegible]

REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		




 (03) BUSHING

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF 304 STAINLESS STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2685C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																																																																																																				
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100% Canadian Owned

24 / 7 After-Hour Service Available

Registered to ISO 9001

Oct 5th / 2016

212 Mega 3/4" end hoops

- Cut one end of material 45° + mark from long end 57 $\frac{3}{4}$ + cut 90° for second cut.
- Measure from 90° end 23 $\frac{3}{8}$ + mark
- Flip piece over + from same end mark 43 $\frac{5}{16}$.
- Set bend stop to 99°.
- Bend 23 $\frac{3}{8}$ bend first ~~now~~ with long end right
- Flip material over bend second with first bend to right.
- Square
- Test one before cutting all material.

Stainless Steel & Alloy

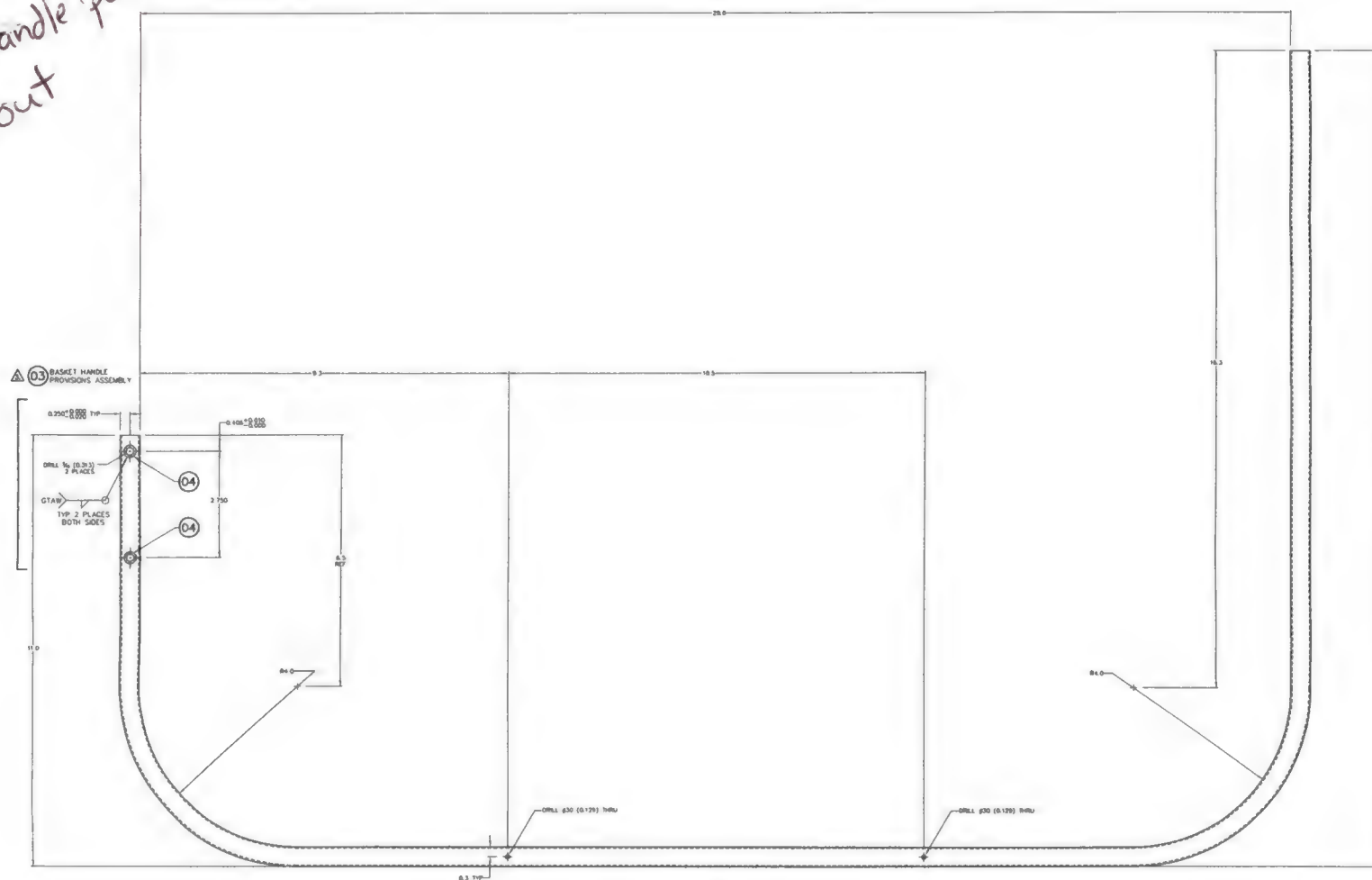
Pipe, Fittings, Flanges, Valves, Tubing, Flex Hoses & Related Products

212 MEGA BODY END HOOPS $\frac{3}{4}$ " 4130

MODEL	Requirements	cautions
	<ul style="list-style-type: none"> - Review LBEP To ensure most current technical Specifications. - Cut length $57\frac{7}{8}$ 90° on both ends - deburr using appropriate methods - Remove marking using a scotchbright and solvent - from one end mark $23\frac{3}{8}$, $43\frac{1}{2}$ - with short end in bender line up - set $\frac{3}{4}$" up in bend station - set lower stop to 990 - with short end in bender set $23\frac{3}{8}$ mark in line with mark on bender (picture) - Place $\frac{1}{2}$" x $\frac{3}{4}$" block between back of bender and tube to be bent (picture) - pull quickly and evenly - contact stop firmly - Remove tube from bender - check for height and square. - place unbent side in bender with bent portion pointing towards you - line up marks on bender with $43\frac{1}{2}$. place $\frac{1}{2}$" x $\frac{3}{4}$" block between back of bender and tube to be bent. - pull quickly and evenly - contact stop firmly - remove tube from bender - check for square, height, width. 	<ul style="list-style-type: none"> - make one complete hoop first - lock lower stop down tightly - check hoops for twist. - be sure mark on tube and mark on bender remain together until tube starts to bend. width $30\frac{1}{2}$ height 21" height. 12"

cut 45° in lower side of hoop
only (picture)

*6
4 w handle provisions
2 wout



01 HOOP
02 HOOP - WITH HANDLE PROVISIONS

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
 2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS266AC. WELDING ROD SHALL CONFORM TO AWS D705-2 OR EQUIVALENT.
- △ BASKET HANDLE PROVISIONS TO BE INSTALLED IN ACCORDANCE WITH AERO DESIGN DRAWING 64362. DIMENSIONS AND PARTS SHOWN ARE FOR REFERENCE ONLY.

64362-01 01 BASKET HANDLE PROVISIONS ASSEMBLY		4130 STEEL FORM H		ML-1-0736	0.312 x 0.008 AND THRU		
64362-02 02 BASKET HANDLE PROVISIONS ASSEMBLY		4130 STEEL FORM H		ML-1-0736	0.312 x 0.008 AND THRU		
64362-03 03 HOOP WITH HANDLE PROVISIONS		4130 STEEL FORM H		ML-1-0736	0.312 x 0.008 AND THRU		
64362-04 04 HOOP		4130 STEEL FORM H		ML-1-0736	0.312 x 0.008 AND THRU		
QTY	QTY	PART NO	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
LIST OF MATERIALS							
APPROVALS		DATE		AERO DESIGN LTD.			
DESIGNED BY JEFF CLARKE		26 NOV 2014		MEMO KALASPIRA ROAD			
CHECKED BY JASON HEAVY		27 NOV 2014		PORTLAND, ME 04106			
UNLESS OTHERWISE SPECIFIED		DIMENSIONS ARE IN INCHES		BELL 205, 212, 214, 412 SERIES			
TOLERANCES ON		DIMENSIONS		QUICK RELEASE MEGA CARGO BASKET			
X MAX ±0.010		X MIN ±0.003		HOOP			
X ±0.01		X ±0.01		SCALE 1:1			
SHEET 1 OF 1		A0		100620		0	

Oct 5th/2016



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100% Canadian Owned

24 / 7 After-Hour Service Available

Registered to ISO 9001

212 Mega $\frac{1}{2}$ " Body hoops

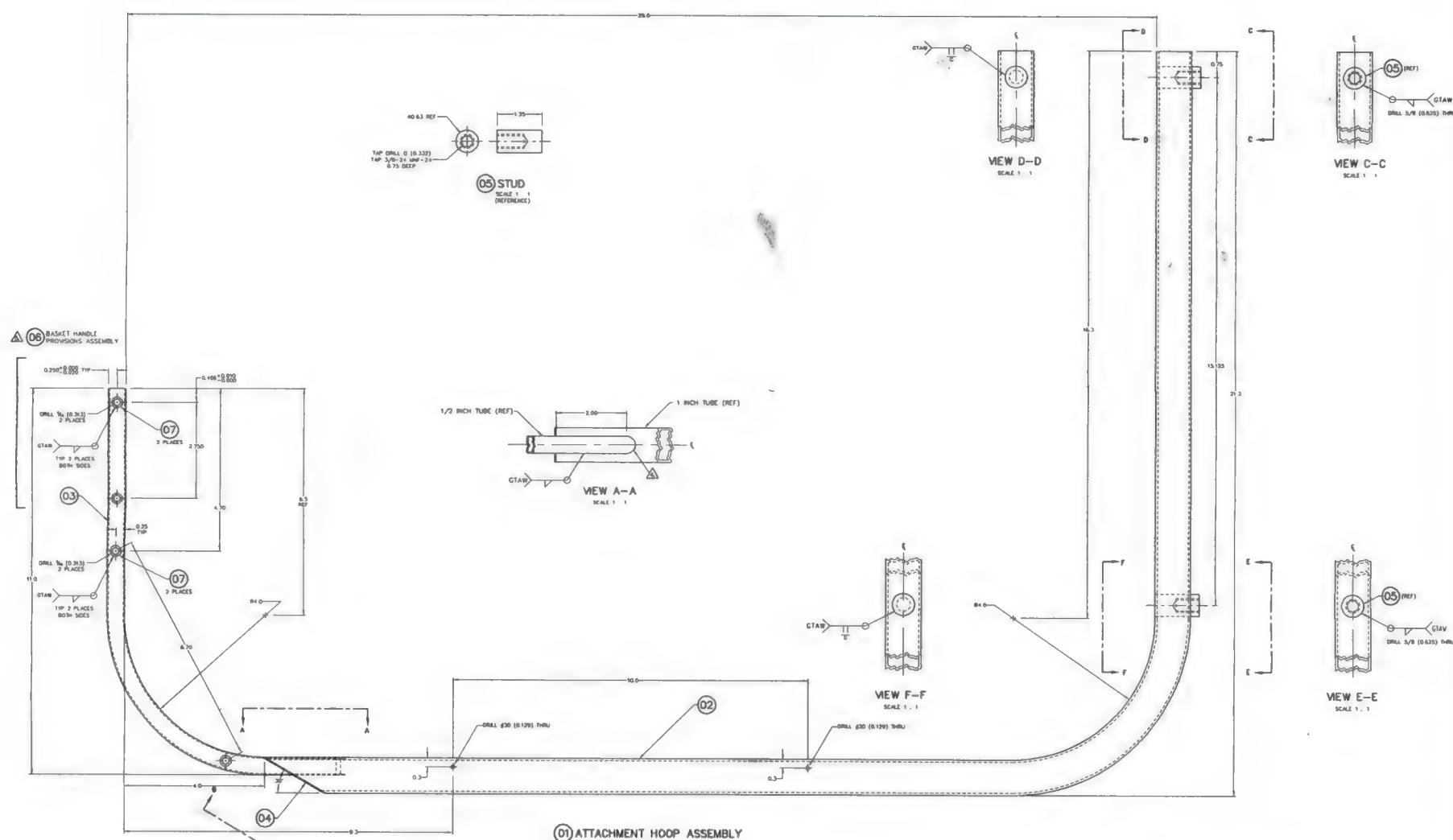
- Cut pieces of $\frac{1}{2}$ " to $56\frac{7}{8}$ (90° both ends)
- From one end mark $23\frac{1}{32}$ & $50\frac{1}{2}$
- Set bend stop to 103°
- Start by bending the $50\frac{1}{2}$ " mark with the long end of material facing left. Bend.
- Slide material until at $23\frac{1}{32}$ mark & repeat bend (first bend on right)
- Square
- Make sure to complete one before cutting & bending all pieces.

Stainless Steel & Alloy

Pipe, Fittings, Flanges, Valves, Tubing, Flex Hoses & Related Products

212 MEGA 1/2" BODY HOOPS

MODEL	Requirements	Assembly
	<ul style="list-style-type: none"> - Review LOEP to ensure most up to date specifications - cut 56 13/16 90° both ends - Deburr using appropriate methods - Remove writing using scotch bright pad and solvent. - From one end mark 22 15/16, 50 5/8 - set 1/2" Bend arm in bend station and mark on bender remain - slide long lower stop to 104° - slide long side into bender until you reach 50 5/8 mark (picture) - Using ADT-501-003 slide between back of bender and tube to be bent. (picture) - bend quickly and evenly - Contact stop firmly - Slide tube along until 22 15/16 mark. - place ADT-501-003 between back of bender and tube to be bent. - pull quickly and evenly - Contact stop firmly - remove and check height, and width. 	<ul style="list-style-type: none"> - Complete one hoop first - lock lower stop tightly - check hoops for twist - be sure mark on tube together until tube starts to bend.



- NOTES**
1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
 2. WELDING OF 4130 STEEL TO BE COMPLETED BY GTAW METHOD TO AWS D8.0M.
- WELDING ROD SHALL CONFORM TO AWS ER70S-2 OR EQUIVALENT.
- WELL SLOTTED INTO 1" TUBE AS SHOWN. CENTER END OF 1/2" TUBE TO MINIMIZE GAP BETWEEN 1" TUBE AND 1/2" TUBE.
- ADJUST SLOT OF CAP (76423-04) TO FIT AS REQUIRED.
- BASKET HANDLE PROVISIONS ARE INSTALLED IN ACCORDANCE WITH AERO DESIGN DRAWING 84262. DIMENSIONS AND PARTS SHOWN ARE FOR REFERENCE ONLY.

REV	QTY	PART NO.	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
01	1	84272-01	ATTACHMENT HOOP ASSEMBLY	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84281-01	06 BASKET HANDLE PROVISIONS	4130 STEEL	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84282-01	07 STUD	4130 STEEL	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84283-01	04 CAP	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84284-01	02 TUBE - 1/2 IN	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84285-01	03 TUBE - 1 IN	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84286-01	05 ATTACHMENT HOOP ASSEMBLY	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
REV	QTY	PART NO.	DESCRIPTION	MATERIAL	MATERIAL SPEC.	STOCK SIZE
01	1	84272-01	ATTACHMENT HOOP ASSEMBLY	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84281-01	06 BASKET HANDLE PROVISIONS	4130 STEEL	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84282-01	07 STUD	4130 STEEL	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84283-01	04 CAP	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84284-01	02 TUBE - 1/2 IN	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84285-01	03 TUBE - 1 IN	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE
01	1	84286-01	05 ATTACHMENT HOOP ASSEMBLY	4130 STEEL CONG. W.	MS-1-8720	10.312 x 0.068 INCH TUBE

AERO DESIGN LTD.
8888 MACLEOD ROAD
POWELL RIVER, BC CANADA T9A 0C3
TEL: 250-846-0000
WWW.AERODESIGN.COM

**BELL 205, 212, 214, 412 SERIES
QUICK RELEASE MEGA CARGO BASKET
ATTACHMENT HOOP ASSEMBLY**

SCALE 1 : 1

SHEET 1 OF 1

A0 100622 0

SKI

1" Hoop Bend

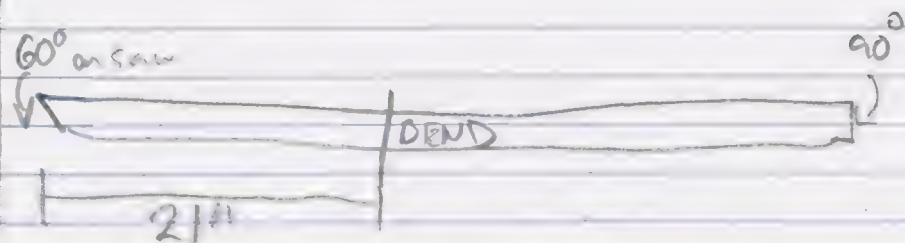
Requirements
*Review LOED to ensure most up to date specifications.
* Cut 33 3/8.
*Cut one end at 16 degrees and the other at 60 degrees.
* At the 16 degree end measure up 21 1/8 and mark.
* Line up the mark on the radius of the bender and bend.

LOWER STOP 101°

MARCH 4, 2015

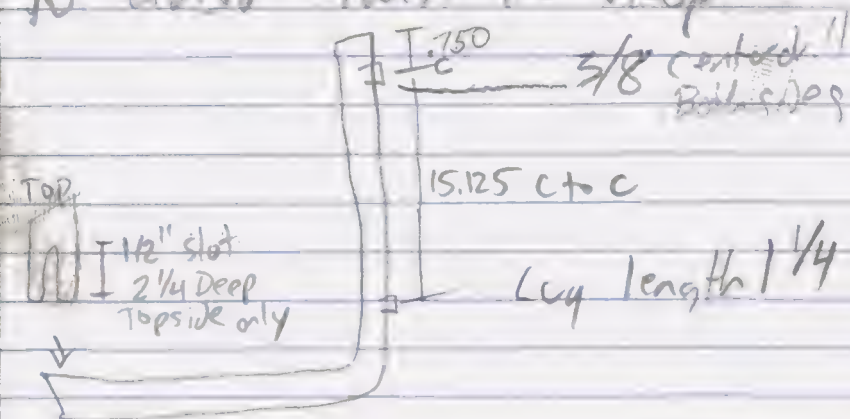
212 MEGA 1" 1/2 hoop 4130

CUT 44 1/8



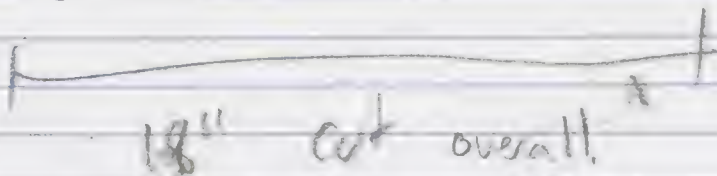
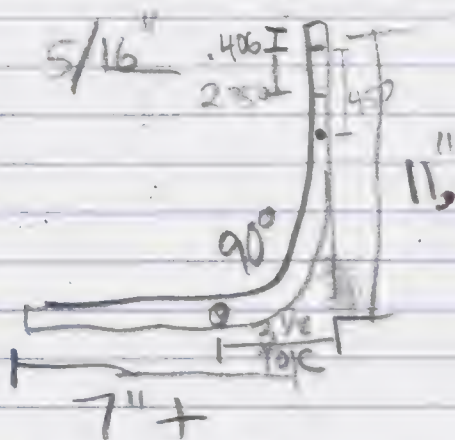
max bender out to make 90°

Caution: Be sure to hold
Pull bar & snipe 90° bender
to avoid twist in hoop.



MARCH 3, 2015

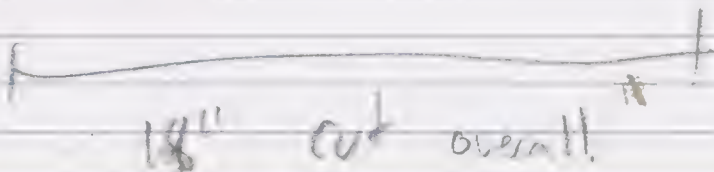
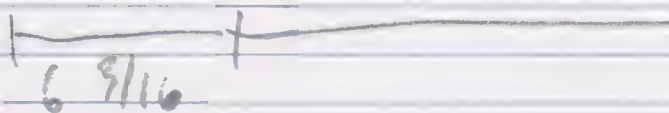
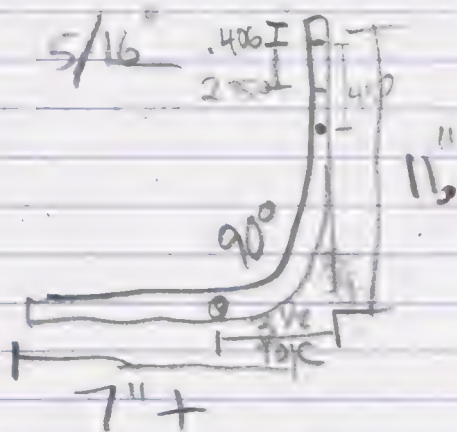
1/2" half hoops 4130



8" long.

MARCH 3, 2015

1/2" half hoops 4130



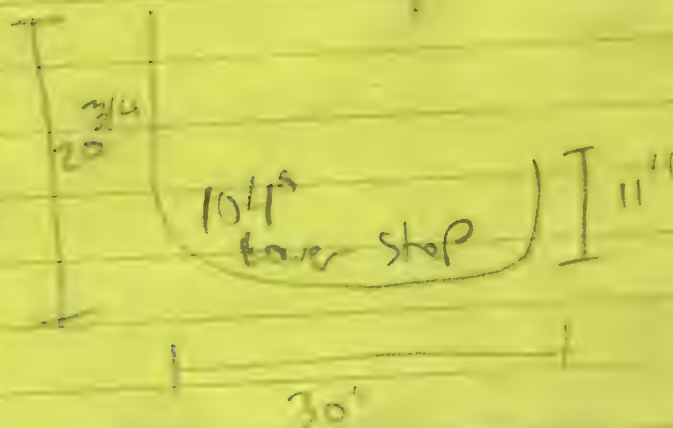
8" long.

MARCH 9, 2015

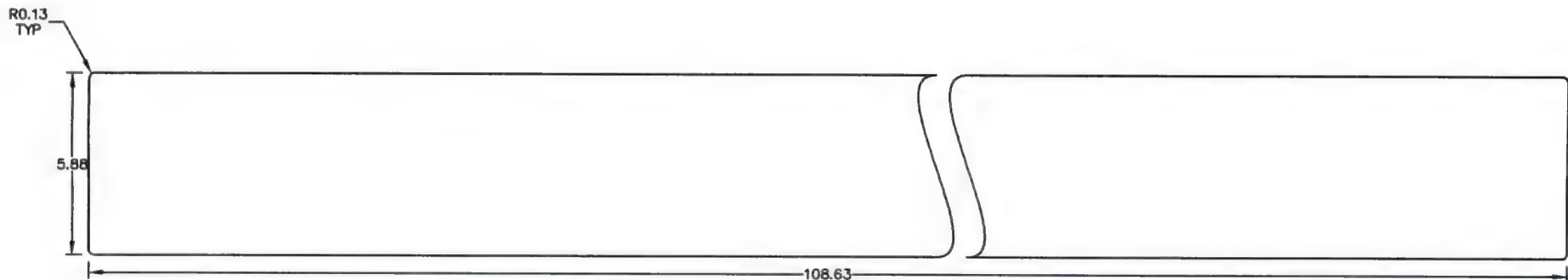
212 mgm 1/2" Rdy
loops

cut. 56 13/16

6 5/16 | bend | 22 15/16



REV.	DESCRIPTION OF CHANGE	INITIALS	DATE
0	INITIAL ISSUE		

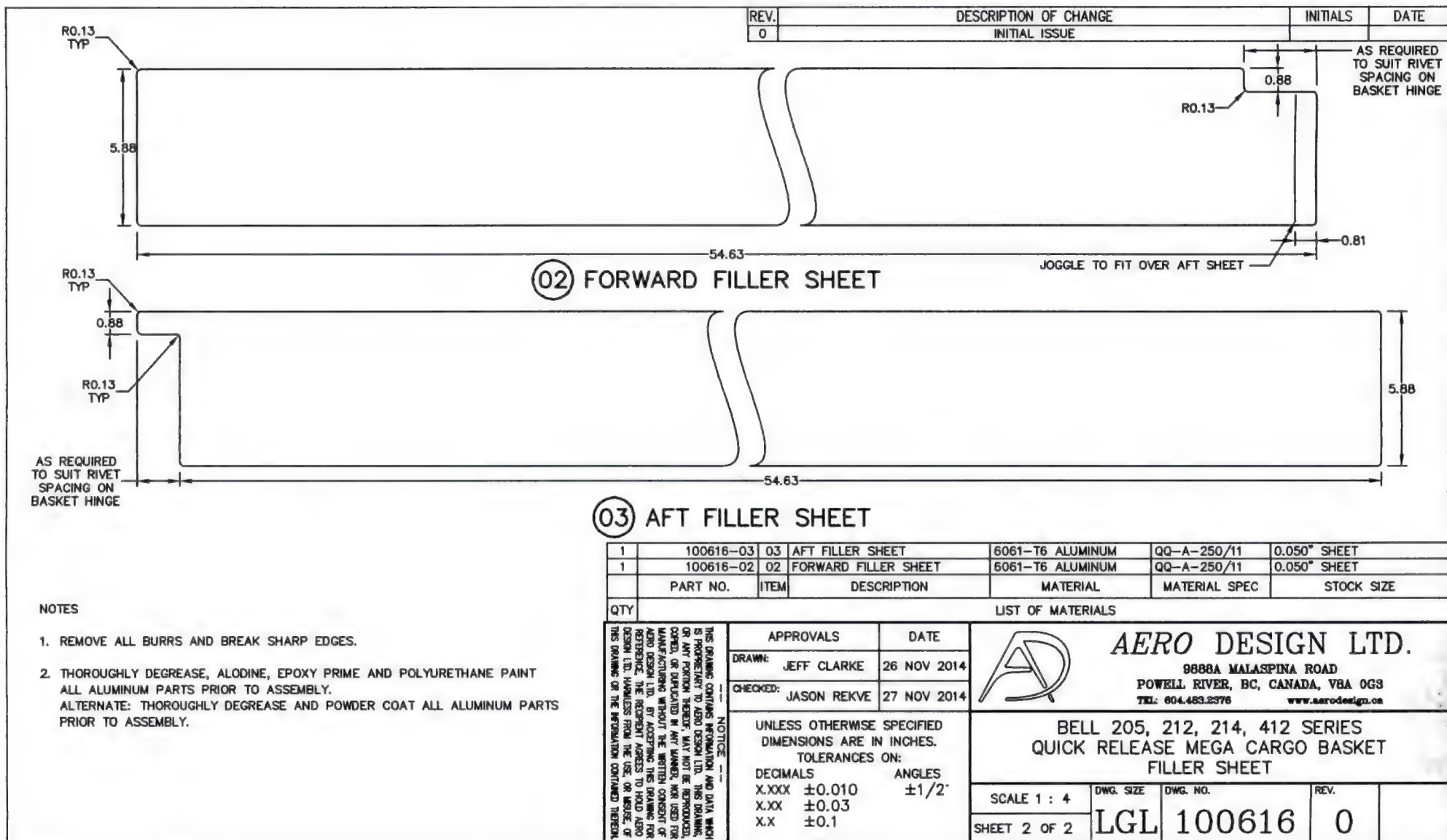


(01) FILLER SHEET

NOTES

1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. THOROUGHLY DEGREASE, ALODINE, EPOXY PRIME AND POLYURETHANE PAINT ALL ALUMINUM PARTS PRIOR TO ASSEMBLY.
ALTERNATE: THOROUGHLY DEGREASE AND POWDER COAT ALL ALUMINUM PARTS PRIOR TO ASSEMBLY.

1	100616-01	01	FILLER SHEET	6061-T6 ALUMINUM	QQ-A-250/11	0.050" SHEET
PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE	
QTY	LIST OF MATERIALS					
APPROVALS DRAWN: JEFF CLARKE 26 NOV 2014 CHECKED: JASON REKVE 27 NOV 2014				AERO DESIGN LTD. 9688A MALASPINA ROAD POWELL RIVER, BC, CANADA, V8A 0G3 TEL: 804.483.2376 www.aerodesign.ca		
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON: DECIMALS ANGLES X.XXX ±0.010 ±1/2° X.XX ±0.03 X.X ±0.1				SCALE 1 : 4	DWG. SIZE	DWG. NO.
SHEET 1 OF 2				LGL	100616	REV. 0



212 MEGA 1" BODY hoops 4130

MODAL	Requirements	Caution
	<ul style="list-style-type: none"> - Review LOED to ensure most up to date specifications - cut 44 1/8 with 60° cut on one end, 90° on other - Deburr using appropriate methods - Remove welding using a scratch bright pad and solvent - from 60° end mark 21" - Place 1" bender in bending station - set lower stop to max (picture) - place 90° end in bender and slide down to 21" mark use 1/2" x 3/4" block between back of bender and piece to be bent. - use a snipe on bender handle to make bending easier. - pull quickly and evenly. - Contact stop slowly - remove and check for square, twist, height, width. 	<p>Be sure to hold snipe properly so it does not twist hoop.</p> <ul style="list-style-type: none"> - make one hoop complete and check measurements height 21" with 25 3/4 be sure to keep mark on bender and mark on piece together until tube starts to bend.

212 MEGA 1/2" 1/2 hoops 4130

MODEL	Requirements	
	<p>Review LOD to ensure most up to date specifications</p> <ul style="list-style-type: none">- Cut 18" 90° both ends- Deburr using appropriate methods- Remove writing using a scotch bright pad and solvent- mark 6 3/16 on tube- Set 1/2" bending handle in bending station- use set lower stop to 104°- place tube long side in bender until you reach 6 3/16 marker place AOT-SOT-003 between back of bender and piece to be bent.- pull quickly and evenly- contact stop firmly- remove and check for same, height.	<p>caution</p> <ul style="list-style-type: none">- cut and bend one hoop complete: check.- be sure to check for twist.- height 11"- length 7"- Be sure mark on bender and mark on tube remain together until tube starts to bend.

212 Mega 1/2" 1/2 Hoops 4130

Requirements
*Review LOED to ensure most up to data specifications.
*Cut 18" 90 degree both ends.
*Deburr using appropriate methods.
*Remove writing using a scotch bright pad and solvent.
*Mark 6 3/16 on tube.
*Set 1/2" bending handle in bending station.
*Set lower stop to 104 degrees.
*Place tube long side in bender until you reach 6 3/16 mark place AOT-501-003 between back of bender and piece to be bent.
*Pull quickly and evenly.
*Contact stop firmly.
*Remove and check for square and height.

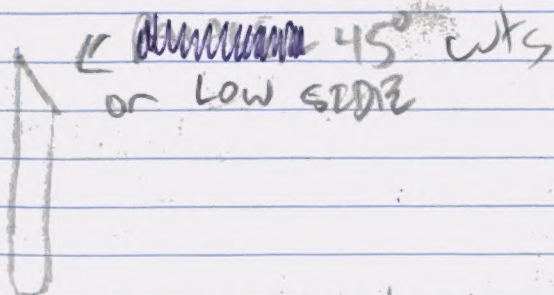
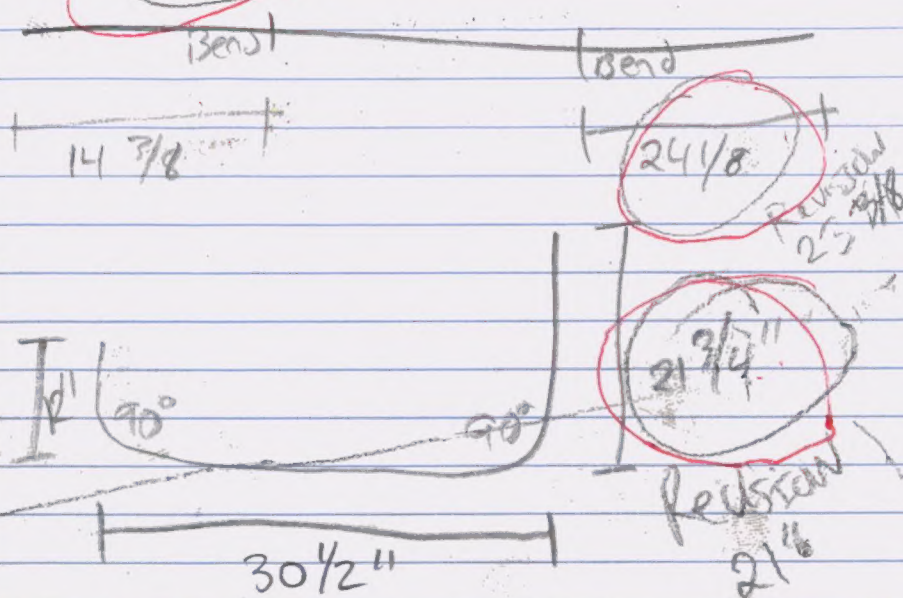
Caution

- *Complete one hoop and check measurements (height 11" and length 7").
- *Be sure to check for twist.
- *Be sure mark on bender and mark on tube remain together until tube starts to bend.

MARCH 3, 2015

212 MEGA BODY END HOOPS
3/4" 4130

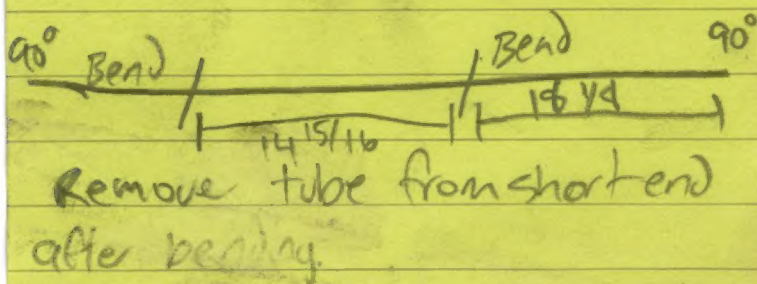
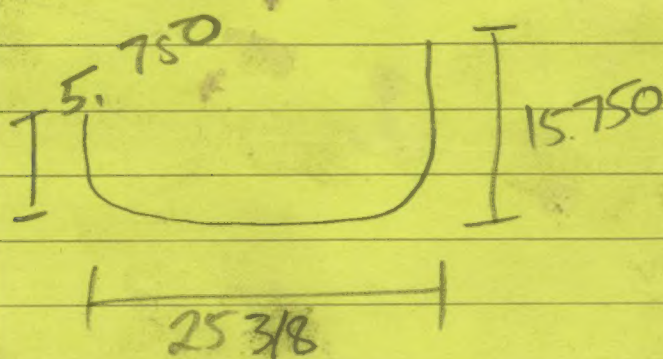
CUT 58 5/8 REVISION 57 1/8



USE 1/2" 1/2 HOOPS TO LOCATE
STEP HOLES

MARCH 3, 2015

212 MEGA center hoops
(4D) 4130



Good Oct 5th/2016

Requirements

- *Review LOED to ensure most up to date specifications.
- *Cut 44 1/8 with 60 degree cut on one end, 90 degree on the other.
- *Deburr using appropriate methods.
- *Remove writing using a scotch bright pad and solvent.
- *From 60 degree end mark 21".
- *Place 1" bender in bending station.
- *Set lower stop to max. (picture)
- *Place 90 degree end in bender and slide down to 21" mark. Use 1/2"x34" block between back of bender and piece to be bent.
- *Use a snipe on bender handle to make bending easier.
- *Pull quickly and evenly.
- *Contact stop firmly.
- *Remove and check for square, twist, height and width.

← 60° end on the right.

Caution

- *Be sure to hold snipe properly so it does not twist the hoop.
- *Complete on hoop and check measurements (height 21" and width 25 3/4").
- *Be sure to keep mark on bender and mark on piece together until tube starts to bend.